

Ke4 background study (09 Jun, 2006)

- A bug is cleared in my pass2 code.
- First branch: $\overline{TGPV \cdot OPSVETO}$
 - TGPV: 1.3 ns and 5 MeV
 - OPSVETO: 3 ns and 2 MeV
- Second branch: \overline{CCDPUL}
 - CCDPUL: 2 MeV

	$TGPV \cdot OPSVETO$	$CCDPUL$
Before final cut	95	122
final cuts	15	42

Progress in umc study

- Several pass2 functions which are not compatible with umc are updated.
- umc events might have the same event number.
- umc events have different position from data.
- Comis and skim jobs run well on umc ntuple now. (Events display on skimed ntuple)

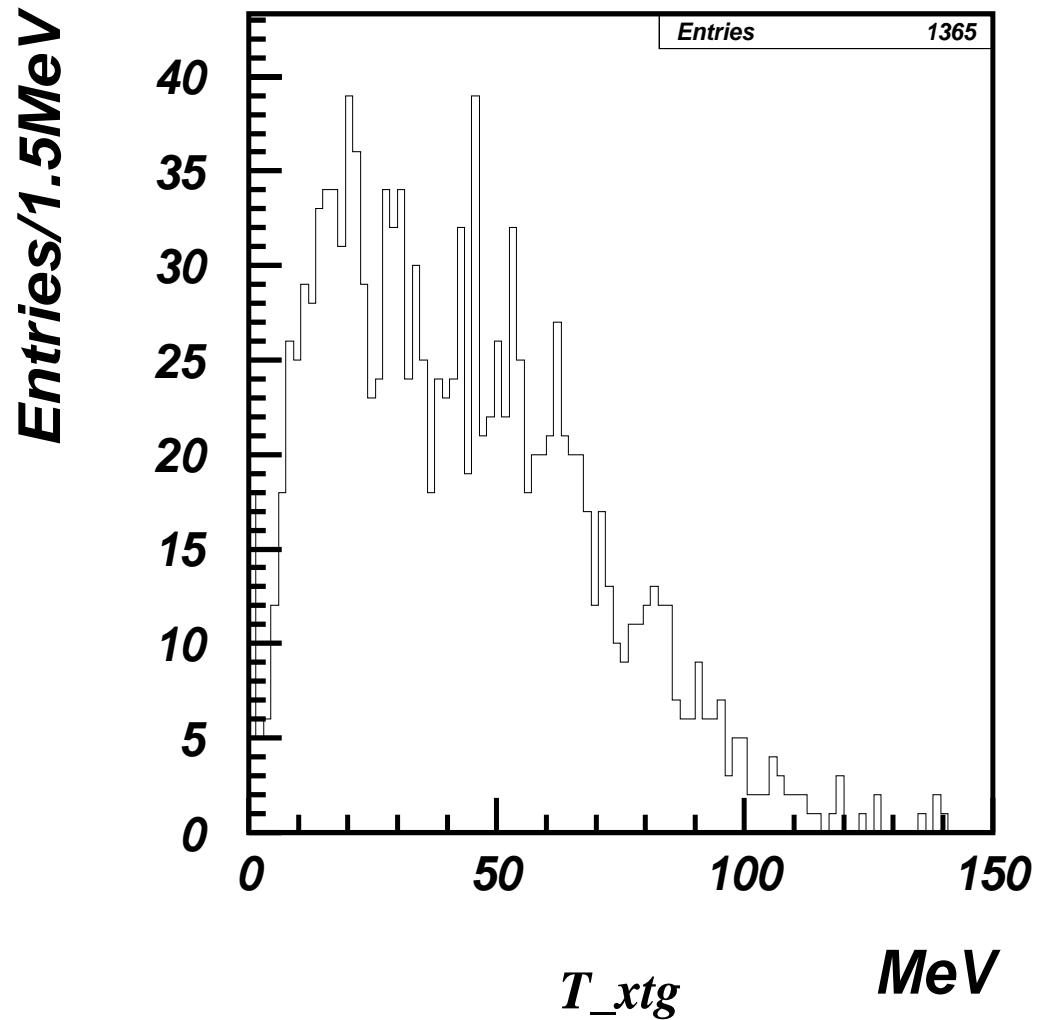
Progress in umc study

- Using umc data to study the rejections of TGPV and CCDPUL
- TGPV (OPSVETO): T_{xtg} , in-time energy in fibers classified as neither K fiber nor π fiber.
- CCDPUL: E_{hide} , total energy in K fibers at π time.

History of pass2 cuts on MC1

Cut	events (acc)		
Kstops	43999156. (1.00000)	TGDEX	23990. (0.64674)
TRIGGER	1335183. (0.03035)	TGENR	19079. (0.79529)
BOX	492633. (0.36896)	PIGAP	18516. (0.97049)
PCUTS	492633. (1.00000)	TGLIKE	17553. (0.94799)
TDCUTS	492633. (1.00000)	TGB4	0. (0.00000)
KCUTS	360652. (0.73209)	PHIVTX1	8088. (0.46078)
PRESEL	161137. (0.44679)	PHIVTX2	7657. (0.94671)
RCUT	161137. (1.00000)	CHI567	2193. (0.28640)
PVICVC	55282. (0.34307)	NPITG	2193. (1.00000)
EPITG	53085. (0.96026)	VERRNG	1383. (0.63064)
EPIMAX	51512. (0.97037)	CHI5MAX	1377. (0.99566)
TGER	51414. (0.99810)	ANGLI	1366. (0.99201)
TARGF	51079. (0.99348)	KIC	1366. (1.00000)
DTGTTTP	51047. (0.99937)	EPIONK	1365. (0.99927)
RTDIF	50078. (0.98102)	TGKTIM	0. (0.00000)
DRP	42396. (0.84660)	TGEDGE	0. (0.00000)
EIC	37094. (0.87494)	TIMKF	0. (0.00000)
TIC	0. (0.00000)	B4EKZ	0. (0.00000)
		ALLKFIT	0. (0.00000)

T_{xtg} distribution



Comparable with Fig. 29 (tn386)

Where is E_{hide}

- No timing simulation in target fiber.
(CCDPUL and EPIONK)
- E_{hide} comes from umc truth in Bipul's code.
- If I am lucky, umc truth was already written into umc data. However pass2 code will updated to extract this information.